REMARKS

The present amendment is submitted in response to the final Office Action dated March 15, 2010, which set a three-month period for response, making an amendment due by June 15, 2010.

Claims 1-2 and 4-13 are pending in this application.

In the Office Action, the claims were objected to for various informalities. Claims 1, 2, and 4-10 were rejected as indefinite under 35 U .S.C. 112, second paragraph. Claims 1, 2, and 10 were rejected unpatentable under 35 U.S.C. 103(a) over U.S. Patent No. 2,987,349 to Kretzmer Jr. in view of U.S. Patent No. 4,652,781 to Andrei-Alexandru, and further in view JP 07015913 to Torii. Claims 4 and 5 were rejected as unpatentable under 35 U.S.C. 103(a) over Kretzmer in view of Andrei-Alexandru and Torii, and further in view of U.S. Pub. No. 2003/0048969 to Hunter et al. Claims 6-9 and 13 were rejected as unpatentable under 35 U.S.C. 103(a) Kretzmer in view of Andrei-Alexandru, and Torii n view of Hunter and further in view of U.S. Patent No. 6,486,577 to Ursel et al. Claim 11 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kretzmer in view of Torii and further in view of JP 53-150356. Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kretzmer in view of Torii in view of U .S. Patent No. 405,559 to Johansson.

In the present amendment, the claims have been amended to address the objections as well as the rejection under Section 112, second paragraph.

Regarding the substantive rejection of the claims, the Applicants respectfully disagree that the cited reference combinations render obvous the subject matter of the pending claims.

More specifically, the Applicants submit that there is no motivation for the practitioner to combine Hunter and Kretzmer. While Hunter describes a "bearing arrangement", however "in the field of precision bearings for example for measurement apparatus having articulated wrist parts" (see Hunter, column 1, paragraph [0001]). These types of precision measuring devices have absolutely nothing to do with a motorized gear-drive unit of Kretzmer. If a practioner were to combine these two references in a manner constituting impermissible hindsight, he would receive no teaching to form a through bore on a bottom surface of the sleeve-like worm 20 of Kretzmer. Since in Kretzmer, a curved molding 23 is already formed on the worm 20, the practitioner would receive no suggestion to replace this by a ball. Hunter, in contrast, shows an axial bearing by means of a ball movement, but does not disclose that on the bottom surface of a bore of a toothed element, a through opening/bore is formed. Therefore, the practitioner also receives no suggestion to insert a ball in such a through bore/opening.

In addition, the reference to Torri teaches away from the subject matter of claims 1 and 5, since this reference specifically discloses that here the bore ("engaging recess 34") is "within the range D of the middle bearing 32 of the speed reduction shaft, being different from the range of a worm 32". This means that here the area of the meshing is to be supported by an additional bearing and the structure of the worm is not to be impaired by a bore. Thus, ***Torri clearly***

teaches away from forming a through bore on the bottom surface of a toothed element.

Likewise, Andrei-Alexandru could not be combined with Hunter. While in this reference a sleeve 56 with a ball 58, it is separate from the gear element (worm 15) and separated by an additional bearing 48. Thus, the practitioner also receives from this reference only the suggestion to form a cup-shaped support element for axial damping of the armature shaft in addition to a cylindrical-casing like drive element (worm 15). Andrei-Alexandru therefore cannot be combined with Kretzmer.

Claim 5 therefore, which depends from claim 1, is not obvious over the cited reference combination.

Regarding claim 7, the Examiner maintains that Ursel makes obvous the feature that the inner diameter of the worm in the area of the "bottom face 46" is less than the axial open side of the worm. He argues that the knurling formed on the armature shaft is formed to correspond to the sleeve-shaped worm. The Applicants disagree: according to Ursel, the cylindrical worm 26 must be displaced over this entire length over the end 28 of the armature shaft. This means that the inner diameter of the cylindrical worm cannot be les than the outer diameter of the armature shaft on its radial end 28. If it ere argued that the knurling on the armature shaft were deformed to the inner diameter oft eh worm 26, this inner diameter, however, is deformed in the same manner over the entire axial length of the cylindrical worm. Thus, the argument that the inner diameter

of the worm 26 in the area of the knurling is less than in the remaining area is completely erroneous.

According to the present invention, in contrast, the embodiment of claim 7 defines that in the axial region (78) of the radial bump (74) of the rotor shaft (18) at the end next to the bottom face (46), the bore (44) has a lesser inside diameter (86) than in regions (84) of the rotor shaft (18) that are without radial bumps. With this structure of the worm sleeve, the armature shat must not be completely displaced through the worm sleeve, whereby a first a press-fit and material deformation must occur as soon as the sleeve with the smaller inner diameter area is displaced over the knurling.

Regarding claim 9, the same argument applies to this claim, which defines that the rotor shaft (18) is connected to the toothed element (32) in a region (78, 96) having the radial bump (74, 73) via a press fit, and in a region (84) without radial bumps, the rotor shaft (18) is connected to the toothed element (32) via a clearance fit. This limitation is defined by the term "through-ground", which clarifies that a press fit in the area of this knurling can only occur when the inner diameter of the worm sleeve has a smaller inner diameter before its mounting on the armature shaft in a specific area. These features appear not to have been considered by the Examiner.

Regarding claim 11, as argued above, Torri specifically teaches away from the embodiment of Kretzmer, so that these references would not be combined and even if combined, could not lead to the subject matter of claim 11.

With regard to claim 12, the same arguments made with regard to claim 5 and the teachings of Kretzmer and Torri apply here. In addition, Johansson is cited to show a through bore for receiving a ball. The Applicants disagree. Johansson shows a radial mounting A and a radial bearing E, H, I of a shaft B. This embodiment, however, is in no way able to be combined with a sleeve-like worm, which is disposed on an armature shaft. The shaft B of Johansson is supported directly in its end surface via the ball H and not, as in the present invention, on a bottom surface of a cup-shaped worm sleeve. Thus, the bore in the axial bearing element ("cup C") is so large that the shaft B can be inserted with their entire diameter through this bore. Thus, the "cup C" only represents a holding element for the ball H, but with its large bore for the shaft B, teaches away from the structure of a cup-shaped worm sleeve, on whose bottom surface a through bore with a smaller diameter is formed, such that the armature shaft with its end can be supported on the bottom surface of the worm sleeve.

Therefore, the Applicants submit that Johansson also could not be combined with the other references discussed above.

The same arguments as set forth above also apply to claim 13.

Since the prior art does not suggest the desirability of the claimed invention, such art cannot establish a prima facie case of obviousness as clearly set forth in MPEP section 2143.01. When prior art references require selective combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned fro m the invention

itself. ***ACS Hosp Sys., Inc., v. Montefiore Hosp.***, 221 USPQ 929, 932, 933 (Fed. Cir. 1984).

The application in its amended state is believed to be in condition for allowance. Action to this end is courteously solicited. However, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,
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